

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for operating a proxy disposed between a user and a document accessible to said user over a computer network, comprising:
 - (a) obtaining an electronic document:
 - (i) identifiable by a network address of said document;
 - (ii) including one or more references to one or more embedded objects;
 - (iii) each said one or more embedded objects being identifiable by a preexisting network address ~~therefore~~ therefor;
 - (b) for at least one of said one or more embedded objects, facilitating storage and re-use thereof from a cache accessible to said user, without requiring user validation of said one or more embedded objects upon said re-use, by:
 - (i) specifying a new network address uniquely identifying said one or more embedded objects; and
 - (ii) ~~specifying~~ modifying cacheability information provided for said one or more embedded objects; and
 - (c) modifying said documents by replacing said preexisting address for said one or more embedded objects with said new network address.
2. (Original) The method of claim 1 occurring automatically in response to said user request for said document.
3. (Original) The method of claim 1 where said proxy is implemented as an intermediary server located between a computer of said user and a server of said document.
4. (Original) The method of claim 1 where said new network address has at least a portion in common with said preexisting network address.

5. (Currently Amended) The method of claim 1 where modifying said cacheability information includes extending a long expiry date.
6. (Currently Amended) The method of claim 1 where modifying said cacheability information includes modifying a long maxage parameter.
7. (Original) The method of claim 1 where said cacheability information includes a relatively recent last modified date.
8. (Currently Amended) The method of claim 1 where said cacheability information includes how long said embedded object can be cached without revalidation.
9. (Original) The method of claim 1 where said proxy is co-located at a server of said document.
10. (Original) The method of claim 9 where said document is dynamically generated at said server.
11. (Original) The method of claim 10 where said dynamic generation includes executing a programmatic description of said document in conjunction with data for at least one variable in said programmatic description.
12. (Previously Presented) The method of claim 1 further comprising storing said one or more embedded objects at said proxy for later use.
13. (Previously Presented) The method of claim 12 further comprising validating said one or more embedded objects that are stored against a server thereof.
14. (Previously Presented) The method of claim 13 further comprising refreshing said one or more embedded objects using condensation techniques.

15. (Currently Amended) The method of claim 34, where transmitting said cacheability information to said requesting user, evaluating the validity of said requested object, and transmitting the outcome of said validity evaluation to said requesting user. ~~Said steps (i) through (iii) recited in claim 34~~ include:

- (i) determining said preexisting network address for said embedded object;
- (ii) fetching said embedded object from said preexisting network address;
- (iii) replacing said cacheability information in said embedded object; and
- (iv) forwarding said embedded object in response to said request.

16. (Currently Amended) The method of claim 33, where said user request in said step recited in claim 33 comes from said user recited in ~~said last step of~~ claim 1.

17. (Currently Amended) The method of claim 33, where said user request in said step recited in claim 33 comes from a user different than said user recited in ~~said last step of~~ claim 1.

18. (Currently Amended) A computer-readable medium comprising program logic instructions for operating a proxy disposed between a user and a document accessible to said user over a computer network, in order to facilitate re-use of objects within said document from a cache without requiring user validation of said objects upon re-use, said instruction when executed:

- (a) obtaining an electronic document:
 - (i) identifiable by a network address of said document;
 - (ii) including one or more references to one or more embedded objects;
 - (iii) each said one or more embedded objects being identifiable by a preexisting network address ~~therefor~~ therefor;
- (b) for at least one of said one or more embedded objects facilitating storage and re-use thereof from a cache accessible to said user, without requiring user validation of said one or more embedded objects upon said re-use, by:

- (i) specifying a new network address uniquely identifying said one or more embedded objects; and
- (ii) ~~specifying~~ modifying cacheability information specified for said one or more embedded objects; and
- (e) modifying said document by replacing said preexisting address for said one or more embedded objects with said new network address.

19. (Currently Amended) The computer-readable medium ~~method~~ of claim 18 occurring automatically in response to said user's request for said document.

20. (Currently Amended) The computer-readable medium ~~method~~ of claim 18 where said proxy is implemented as an intermediary server located between a computer of said user and a server of said document.

21. (Currently Amended) The computer-readable medium ~~method~~ of claim 18 where said new network address has at least a portion in common with said preexisting network address.

22. (Currently Amended) A device configured to facilitate re-use of objects within said document from a cache comprising:

- (a) resources for obtaining an electronic document:
 - (i) identifiable by a network address of said document;
 - (ii) including one or more references to one or more embedded objects; and
 - (iii) each said one or more embedded objects being identifiable by a preexisting network address ~~therefore~~ therefor;
- (b) resources for facilitating storage and re-use of at least one of said one or more embedded objects, from a cache accessible to said user, without requiring validation of said one or more embedded objects upon said re-use, by:
 - (i) specifying a new network address uniquely identifying said one or more embedded objects; and

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- (ii) ~~specifying~~ changing cacheability information for said one or more embedded objects; and
- (e) resources for modifying said document by replacing said preexisting address for said one or more objects with said new network address.
23. (Original) The device of claim 22 occurring automatically in response to said user's request for said document.
24. (Currently Amended) The device of claim 22 where ~~a proxy~~ the device is implemented as an intermediary server located between a computer of said user and a server of said document.
25. (Original) The device of claim 22 where said new network address has at least a portion in common with said preexisting network address.
26. (Currently Amended) The method of claim 34, wherein ~~step (ii) recited in claim 34~~ evaluating the validity of said requested object includes validating said embedded object against a content server.
27. (Currently Amended) The method of claim 34, wherein ~~step (iii) recited in claim 34~~ transmitting an outcome of said validity evaluation to said requesting user includes instructing said user to use ~~user~~ a copy of said embedded object accessible to said user.
28. (Currently Amended) The method of claim 1, further comprising transmitting to said user a version of said embedded object.
29. (Currently Amended) A method for operating a proxy disposed between a user and a document accessible to said user over a computer network, in order to facilitate re-use of objects within said document from a cache instead of necessarily requiring downloading said objects upon each use, comprising:
- (a) obtaining an electronic document;

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- (i) identifiable by a network address of said document;
 - (ii) including one or more references to one or more embedded objects;
 - (iii) each said one or more embedded objects being identifiable by a network address ~~therefore~~ therefor;
- (b) for at least one of said one or more embedded objects, facilitating storage and re-use thereof from a cache accessible to said user, without requesting said one or more embedded objects upon said use, by ~~specifying~~ modifying cacheability information for said one or more embedded objects that:
- (i) permits caching thereof;
 - (ii) including an entity tag uniquely identifying said one or more embedded objects; and
 - (iii) specifies a required validation of said one or more embedded objects.
30. (Currently Amended) The method of claim 45 wherein:
- (a) said validity evaluation does not indicate invalidity; and
 - (b) further comprising instructing said user to use a copy of said embedded object accessible to said user.
31. (Currently Amended) The method of claim 45, where:
- (a) said validity evaluation indicates invalidity; and
 - (b) further comprising transmitting to said user a version of said embedded object.
32. (Previously Presented) The method of claim 1, further comprising:
transmitting said modified document to said user.
33. (Previously Presented) The method of claim 32, further comprising:
receiving a user request for at least one of said embedded objects.
34. (Currently Amended) A method for operating a proxy disposed between a user and a document accessible to said user over a computer network, comprising:

obtaining an electronic document identifiable by a network address of said document, including one or more references to one or more embedded objects, each said one or more embedded objects being identifiable by a preexisting network address therefor;

for at least one of said one or more embedded objects, facilitating storage and re-use thereof from a cache accessible to said user, without requiring user validation of said one or more embedded objects upon said re-use, by specifying a new network address uniquely identifying said one or more embedded objects, and specifying cacheability information for said one or more embedded objects;

modifying said documents by replacing said preexisting address for said one or more embedded objects with said new network address;

transmitting said modified document to said user;

receiving a user request for at least one of said embedded objects; and

~~The method of claim 33, further comprising:~~

in response to said request:

- (i) transmitting said cacheability information to said requesting user;
- (ii) evaluating the validity of said requested object, using information from said user request; and
- (iii) transmitting an outcome of said validity evaluation to said requesting user.

35. (Previously Presented) The medium of claim 18, further comprising:
transmitting said modified document to said user.

36. (Previously Presented) The medium of claim 35, further comprising:
receiving a user request for at least one of said embedded objects.

37. (Currently Amended) A computer-readable medium comprising program logic instructions for operating a proxy disposed between a user and a document accessible to said user over a computer network, in order to facilitate re-use of objects within said document from a cache without requiring user validation of said objects upon re-use, said instruction when executed:

obtaining an electronic document identifiable by a network address of said document, including one or more references to one or more embedded objects, each said one or more embedded objects being identifiable by a preexisting network address therefor;

for at least one of said one or more embedded objects facilitating storage and re-use thereof from a cache accessible to said user, without requiring user validation of said one or more embedded objects upon said re-use, by specifying a new network address uniquely identifying said one or more embedded objects, and specifying cacheability information for said one or more embedded objects;

modifying said document by replacing said preexisting address for said one or more embedded objects with said new network address;

transmitting said modified document to said user;

receiving a user request for at least one of said embedded objects; and

~~The medium of claim 36, further comprising:~~

in response to said request:

- (i) transmitting said cacheability information to said requesting user;
- (ii) evaluating the validity of said requested object, using information from said user request; and
- (iii) transmitting an outcome of said validity evaluation to said requesting user.

38. (Previously Presented) The device of claim 22, further comprising:
resources for transmitting said modified document to said user.

39. (Previously Presented) The device of claim 38, further comprising:
resources for receiving a user request for at least one of said embedded objects.

40. (Previously Presented) The device of claim 39, further comprising:
resources for transmitting said cacheability information to said requesting user.

41. (Currently Amended) A device configured to facilitate re-use of objects within said document from a cache comprising:

resources for obtaining an electronic document identifiable by a network address of said document, including one or more references to one or more embedded objects, each said one or more embedded objects being identifiable by a preexisting network address therefor;

resources for facilitating storage and re-use of at least one of said one or more embedded objects, from a cache accessible to said user, without requiring validation of said one or more embedded objects upon said re-use, by specifying a new network address uniquely identifying said one or more embedded objects, and specifying cacheability information for said one or more embedded objects;

resources for modifying said document by replacing said preexisting address for said one or more objects with said new network address;

resources for transmitting said modified document to said user;

resources for receiving a user request for at least one of said embedded objects;

resources for transmitting said cacheability information to said requesting user; and

~~The device of claim 40, further comprising:~~

resources for evaluating the validity of said requested object, using information from said user request.

42. (Previously Presented) The device of claim 41, further comprising:
resources for transmitting an outcome of said validity evaluation to said requesting user.
43. (Previously Presented) The method of claim 29, further comprising:
transmitting said modified document to said user.
44. (Previously Presented) The method of claim 43, further comprising:
receiving a user request for at least one of said embedded objects.
45. (Currently Amended) A method for operating a proxy disposed between a user and a document accessible to said user over a computer network, in order to facilitate re-use of objects within said document from a cache instead of necessarily requiring downloading said objects upon each use, comprising:

obtaining an electronic document identifiable by a network address of said document,
including one or more references to one or more embedded objects, each said one
or more embedded objects being identifiable by a network address therefor;
for at least one of said one or more embedded objects, facilitating storage and re-use
thereof from a cache accessible to said user, without requesting said one or more
embedded objects upon said use, by specifying cacheability information for said
one or more embedded objects that permits caching thereof, including an entity
tag uniquely identifying said one or more embedded objects, and specifying a
required validation of said one or more embedded objects;
transmitting said modified document to said user;
receiving a user request for at least one of said embedded objects; and
~~The method of claim 44, further comprising:~~
in response to said request:

- (i) transmitting said cacheability information to said requesting user;
- (ii) evaluating the validity of said requested object, using information from said user request; and
- (iii) transmitting an outcome of said validity evaluation to said requesting user.

46. (New) A method of managing content delivery comprising:

at a content server proxy, receiving a content request from a user for content provided by a content server;

receiving the content transmitted from the content server to the content server proxy;
dynamically processing the content with the content server proxy, wherein dynamically processing the content comprises,

reassigning a resource locator for an embedded object of the content to a modified resource locator which includes a header having validity data for the embedded object,

modifying the validity data to include a future date, and

modifying each reference to the embedded object contained in the content to the modified resource locator; and

transmitting the dynamically processing the content to the user.

47. (New) The method of claim 46 wherein dynamically processing the content further comprises setting a last modified date of the header for the embedded object.

48. (New) A method of managing content delivery comprising:

at a content server proxy, receiving a content request from a user for content provided by a content server;

receiving the content transmitted from the content server to the content server proxy, wherein the content has an associated resource locator with a header specifying cache control information for the content, the cache control information comprising an expiration date, a last modified date and a cache control field indicating if the content can be cached;

dynamically processing the content with the content server proxy, wherein dynamically processing the content comprises

modifying the header expiration date to a future date,

modifying the header last modified date to a date corresponding to a current date,

and

modifying the header cache control field to allow caching of the content; and

transmitting the dynamically processing the content to the user.